

Amendments to the Specification:

After the title and before the first paragraph, please insert the following paragraph:

THIS APPLICATION IS A U.S. NATIONAL PHASE APPLICATION OF PCT INTERNATIONAL APPLICATION PCT/JP2004/008520.

Please replace the paragraph, beginning at page 3, line 13, with the following rewritten paragraph:

The holding table 13 is a table for holding the living body measuring optical element 12. The holding table 13 has holes 25 for allowing light emitted from the light source 11 to strike the living body measuring optical element 12 and for allowing the light from the living body measuring optical element 12 to strike the light ~~detector-guide~~ detection means 16, respectively. A ~~groovy~~grooved portion 17 is provided to the living body measuring optical element 12. The ~~groovy~~grooved portion 17 has a light-emitting section for emitting light toward a living body and a light incident section for receiving light from the living body. These two sections are not arranged in the same plane and constitute a ~~groovy~~grooved form such that light emitted from the light emitting section can directly enter the light incident section. Therefore, it is difficult to apply light emitted from the light emitting section to the reflection board 101 and cause the reflected light to be received by the light incident section of the ~~groovy~~grooved portion 17. Thus, light emitted from the light source 11 cannot pass through the living body measuring optical element 12 again, with the result that the light cannot be detected by the light guide detection means 16.

Please replace the paragraph, beginning at page 10, line 22, with the following rewritten paragraph:

17 ~~Groovy~~Grooved portion

Please replace the paragraph, beginning at page 11, line 23, with the following rewritten paragraph:

The biological information measuring apparatus according to this embodiment is an apparatus of measuring information about the tissue near the surface of a living body. Specifically, the biological information measuring apparatus according to the embodiment

has a ~~groovy~~grooved portion 17 at the surface portion of the living body measuring optical element 12 to be in contact with the surface of a living body, for measuring light passed through the tissue near the surface of a living body. The biological information measuring apparatus according to the embodiment is an apparatus of measuring light passed though a surface portion of a living body which is trapped by the ~~groovy~~grooved portion 17 by bringing the surface of the living body measuring optical element 12 into contact with the surface of the living body.

Please replace the paragraph, beginning at page 13, line 19, with the following rewritten paragraph:

As for the shape of the ~~groovy~~grooved portion 17 formed on the living body measuring optical element 12, a V-shaped groove as shown in the figure may be employed. However, the shape is not limited to this type. A U-shaped or a step-form groove may be used.

Please replace the paragraph, beginning at page 16, line 21, with the following rewritten paragraph:

As shown in Figure 1, the light guide 14 is pressed against the living body measuring element 12 by holding the cover 15 having the light guide 14. In this manner, the light guide 14 can be brought into contact with the ~~groovy~~grooved portion 17 of the living body measuring element 12, as shown in Figure 2.

Please replace the paragraph, beginning at page 17, line 1, with the following rewritten paragraph:

The light that is emitted from the light source 11 and reaches the living body measuring optical element 12, goes to the ~~groovy~~grooved portion 17 provided in the living body measuring optical element 12. Then, the light from the ~~groovy~~grooved portion 17 strikes the light guide 14. After being refracted or scattered by the light guide and the light again strikes the living body measuring optical element 12.

Please replace the paragraph, beginning at page 17, line 8, with the following rewritten paragraph:

The incident angle of the light incident on the ~~groovy~~grooved portion 17 can be determined based on the shape of the ~~groovy~~grooved portion 17, refractory indexes and

absorption coefficients of the living body measuring optical element 12 and the light guide, ~~or the incident angle with respect to the groovy portion 17.~~

Please replace the paragraph, beginning at page 18, line 3, with the following rewritten paragraph:

The light which has reached the living body measuring optical element 12 passes through the light guide 14 in contact with the ~~groovy~~grooved portion 17 in this state, and returns again to the living body measuring optical element 12 and reaches the light detector 16.

Please replace the paragraph, beginning at page 18, line 10, with the following rewritten paragraph:

A calibration signal value obtained where the light source 11 and the light detector 16 are in normal conditions is used as a reference value. The reference value is stored in the memory means 22 ~~(in the memory means 22)~~ in advance. The calibration signal value stored by the calculation section 21 in the memory means 22 is then compared to the reference value. If the calibration signal value stored in the memory means 22 fails to fall within the range of the reference value, it is considered that the light source 11, the light detector 16 or the living body measuring optical element 12 is faulty. In this case, the display section 23 displays a message indicating that the light source 11, the light detector 16 or the living body measuring optical element 12 is faulty or informs the message by voice. When the display section 23 gives such a notice by display or voice, it is preferable that the light source 11, the light detector 16 or the living body measuring optical element 12 be replaced with new one.

Please replace the paragraph, beginning at page 19, line 10, with the following rewritten paragraph:

The light is emitted from the light source and reaches the living body measuring optical element 12, and thereafter, passes through the living tissue in contact with the ~~groovy~~grooved portion 17, and reaches the light detector.

Please replace the paragraph, beginning at page 21, line 1, with the following rewritten paragraph:

In this embodiment, it was described that the living body measuring optical element 12 is as shown in Figure 1. However, the element is not limited to this type and a living body measuring optical element 12a shown in Figure 3 may be used. The living body measuring optical element 12a has a ~~groovy~~grooved portion 17, which is formed of a light emitting surface 17a and a light incident surface 17b, an optical fiber 23 for guiding the light emitted from the light source 11 to the ~~groovy~~grooved portion 17a, and an optical fiber 24 for guiding the incident light on the light incident surface 17b to the light detector 16. The living body measuring optical element 12a is used to measure biological information by pressing the ~~groovy~~grooved portion 17 of the living body measuring optical element 12a against the surface of the living body and detecting light passing through the portion of the living body trapped by the ~~groovy~~grooved portion 17. If a living body measuring optical element 12a of this configuration is used in place of the living body measuring optical element 12, the same effect as that of this embodiment can be achieved.

Please delete the following title, beginning at page 21, line 20:

~~Industrial Applicability~~